From:	POULSEN Mike
To:	Dana Davoli/R10/USEPA/US@EPA
Cc:	FARRER David G; lavellejm@cdm.com; Chip Humphrey/R10/USEPA/US@EPA; Eric Blischke/R10/USEPA/US@EPA
Subject:	RE: Material to Review for Wednesday's (Dec 26) 2:00 PM (PST) Conference Call
Date:	12/26/2007 02:12 PM

Dana -

Some of the text I proposed on the evaluation of dermal exposure should be edited. Here are my suggested revisions to discuss today (comment on p. 14).

I think we should also revisit including this evaluation. We decided to include drinking water as a relevant pathway for surface water. Including dermal exposure to high-molecular weight compounds could lower the screening levels by an order of magnitude. I don't believe those results, and they would be difficult to explain.

- Mike

Page 14, Section 2.4.2.

Surface water data were screened using Region 9 tapwater PRGs to select COPCs for dermal exposure and ingestion. Dermal exposure is not included in the derivation of EPA screening values, so there may be a concern that, although this screening was conservative for drinking the water, it may not be protective for dermal exposure. To address this concern, an evaluation such as the following can be included in the Uncertainty section.

Dermal exposure to arsenic, the only chemical screened in, is not important. However, EPA guidance indicates that dermal exposure in water to high-molecular weight compounds may be an important pathway. To address this issue, dermal
exposure in surface water to benzo[a]pyrene and 2,3,7,8-TCDD was evaluated.

RAGS Part E, Exhibit B-3 provides dermal absorption factors, expressed as mg/cm2-event per mg/L, which equates to L/cm2-event. This is called DA, but doesn't include the actual site concentration. In this evaluation, it will designated DA'.

[skip to end]

This shows that for two potentially important chemicals that were not screened in, the risk from dermal exposure appears to be acceptable. This evaluation is likely overly conservative because high-molecular weight chemicals exceed the effective predictive domain used to develop dermal absorption parameters. The above calculations show that screening based on drinking water levels is appropriately conservative.